Group Art Unit 1639

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## **AMENDMENTS TO THE CLAIMS**

This Listing of Claims will replace all prior versions and listings of the claims in this application:

## **Listing of Claims:**

- 1. (currently amended) A solid oral dosage form comprising a <u>hydrophilic or</u> macromolecular drug and, as an enhancer <u>for delivery to an intestine</u>, a salt of a medium chain fatty acid which has a carbon chain length of from 6 to 20 carbon atoms, wherein said <u>eomposition</u> <u>dosage form</u> and each of said constituents and any other constituent comprising the <u>eomposition is dosage form are</u> a solid at room temperature.
- 2. (canceled)
- 3. (original) The solid oral dosage form of claim 1, wherein the carbon chain length is from 8 to 14 carbon atoms.
- 4. (previously presented) The solid oral dosage form of claim 1 wherein the enhancer is a sodium salt of a medium chain fatty acid.
- 5. (original) The solid oral dosage form according to claim 4, wherein the enhancer is selected from the group consisting of sodium caprylate, sodium caprate and sodium laurate.
- 6. (original) The solid oral dosage form according to claim 1, wherein the drug is a polysaccharide, an oligosaccharide, a protein or a peptide.
- 7. (original) The solid oral dosage form according to claim 6, wherein the polysaccharide is low molecular weight heparin.

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- 8. (withdrawn) The solid oral dosage form according to claim 6, wherein the peptide is luteinising hormone-releasing hormone analog.
- 9. (withdrawn) The solid oral dosage form according to claim 1, wherein the drug is selected from the group consisting of TRH, unfractionated heparin, insulin, luteinising hormone-releasing hormone (LHRH), leuprolide, goserelin, genotropin, nafarelin, buserelin, alendronate, cyclosporine, calcitonin, vasopressin, desmopressin and salts thereof.
- 10. (original) The solid oral dosage form of claim 1, wherein the drug and the enhancer are present in a ratio of from 1:100,000 to 10:1 (drug : enhancer).
- 11. (original) The solid oral dosage form of claim 1, wherein the dosage form is a tablet, a capsule or a multiparticulate dosage form.
- 12. (currently amended) The solid oral dosage form of claim 11, wherein the dosage form is a controlled delayed release dosage form.
- 13. (previously presented) The solid oral dosage form of claim 11, wherein the dosage form further comprises a rate-controlling polymer material.
- 14. (previously presented) The solid oral dosage form of claim 13, wherein the ratecontrolling polymer material is HPMC.
- 15. (previously presented) The solid oral dosage form of claim 13, wherein the ratecontrolling polymer material is a polymer derived from acrylic or methacrylic acid and their respective esters or copolymers derived from acrylic or methacrylic acid and their respective esters.

- 16. (previously presented) The solid oral dosage form of claim 13, wherein the drug and enhancer and at least one auxiliary excipient are compressed into tablet form prior to coating with a rate controlling polymer material.
- 17. (original) The solid oral dosage form of claim 12, wherein the drug and enhancer and at least one auxiliary excipient are compressed into tablet form prior to coating with a delayed release polymer.

## 18-20. (canceled)

- 21. (previously presented) The solid oral dosage form of claim 13, wherein the drug, the enhancer and at least one auxiliary excipient are compressed into the form of a multilayer tablet prior to coating with the rate controlling-polymer material.
- 22. (original) The solid oral dosage form of claim 12, wherein the drug, the enhancer and at least one auxiliary excipient are compressed into the form of a multilayer tablet prior to coating with a delayed release polymer.
- 23. (original) The solid oral dosage form of claim 13, wherein the drug and enhancer are dispersed in the rate-controlling polymer material and compressed into the form of a multilayer tablet.
- 24. (previously presented) The solid oral dosage form of claim 23, wherein the multilayer tablet is coated with a rate-controlling polymer material.
- 25. (original) The solid oral dosage form of claim 23, wherein the multilayer tablet is coated with a delayed release polymer.
- 26. (original) The solid oral dosage form according to claim 13, wherein the drug, the enhancer, at least one auxiliary excipient, and the rate-controlling polymer material are combined into a multiparticulate form.

- 27. (previously presented) The solid oral dosage form according to claim 26, wherein the multiparticulate form comprises discrete particles, pellets, minitablets, or combinations thereof.
- 28. (previously presented) The solid oral dosage form according to claim 27 comprising a blend of two or more populations of particles, pellets or mini-tablets having different in vitro or in vivo release characteristics.
- 29. (previously presented) The solid oral dosage form according to claim 26, wherein the multiparticulate is encapsulated in hard or soft gelatin capsules.
- 30. (previously presented) The solid oral dosage form according to claim 29, wherein the capsule is coated with a rate-controlling polymer material.
- 31. (original) The solid oral dosage form according to claim 29, wherein the capsule is coated with a delayed release polymer.
- 32. (previously presented) The solid oral dosage form according to claim 26, wherein the multiparticulate is incorporated into a sachet.
- 33. (previously presented) The solid oral dosage form according to claim 27, wherein the discrete particles or pellets are compressed into tablet form.
- 34. (previously presented) The solid oral dosage form according to claim 33, wherein the tablet form is coated with a rate controlling polymer material.
- 35. (previously presented) The solid oral dosage form according to claim 33, wherein the tablet form is coated with a delayed release polymer.

- 36. (previously presented) The solid oral dosage form according to claim 27, wherein the discrete particles or pellets are compressed into a multilayer tablet.
- 37. (previously presented) The solid oral dosage form according to claim 36 wherein the multilayer tablet is coated with a rate controlling polymer material.
- 38. (previously presented) The solid oral dosage form according to claim 36 wherein the multilayer tablet is coated with a delayed release polymer.
- 39. (currently amended) A method of treatment of a medical condition comprising administering orally to a patient suffering from said medical condition a therapeutically effective amount of a dose of a composition which is in solid form and which comprises a hydrophilic or macromolecular drug effective in treating the medical condition and, as an enhancer for delivery to an intestine, a salt of a medium chain fatty acid which has a carbon chain length of from 6 to 20 carbon atoms, wherein said composition and each of said constituents and any other constituent comprising the composition is are a solid at room temperature.
- 40. (canceled)
- 41. (currently amended) A process for the manufacture of a composition in solid oral dosage form comprising the steps of:
  - a) providing a blend of a <u>hydrophilic or macromolecular</u> drug and, as an enhancer <u>for delivery to an intestine</u>:
  - (i) a <u>salt of a</u> medium chain fatty acid <del>or salt thereof</del> having a carbon chain length of from 6 to 20 carbon atoms;
  - (ii) a medium chain fatty acid halide derivative, a medium chain fatty acid anhydride derivative, or a medium chain fatty acid glyceride derivative, each of said derivatives having a carbon chain length of from 6 to 20 carbon atoms; or

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- (iii) the fatty acid <u>salt</u> of clause (i) having, at the end opposite the fatty acid <u>salt</u>, an acid halide, an acid anhydride, or glyceride moiety;
- (iv) an acid halide derivative of clause (ii) above having, at the end opposite of the halide portion, an acid halide, acid anhydride, or glyceride moiety;
- (v) an anhydride derivative of clause (ii) above having, at the end opposite of the anhydride, an acid anhydride, acid halide, or glyceride moiety; or
- (vi) a glyceride derivative of clause (ii) above having, at the end opposite of the glyceride portion, a glyceride, an acid halide, or acid anhydride moiety; which blend also comprises, optionally, another constituent(s); wherein said blend and each of said drug, enhancer, and optional constituent(s) is a solid at room temperature; and
- b) forming said solid oral dosage form of the composition from the blend by:
  - i) direct compression of the blend; or
- ii) granulating the blend to form a granulate for incorporation into said solid oral dosage form.
- 42. (previously presented) The process according to claim 41 wherein the drug and the enhancer are blended in a ratio of from 1:100,000 to 10:1 (drug: enhancer).

## 43-46. (canceled)

- 47. (currently amended) A <u>pharmaceutical</u> composition in solid oral dosage form comprising a <u>hydrophilic or macromolecular</u> drug and, as an enhancer <u>for delivery to an intestine</u>:
  - (i) a <u>salt of a</u> medium chain fatty acid <del>or salt thereof</del> having a carbon chain length of from 6 to 20 carbon atoms;

- (ii) a medium chain fatty acid halide derivative, a medium chain fatty acid anhydride derivative, or a medium chain fatty acid glyceride derivative, each of said derivatives having a carbon chain length of from 6 to 20 carbon atoms;
- (iii) the fatty acid <u>salt</u> of clause (i) having, at the end opposite the fatty acid <u>salt</u>, an acid halide, acid anhydride, or glyceride moiety;
- (iv) an acid halide derivative of clause (ii) above having, at the end opposite of the halide portion, an acid halide, acid anhydride, or glyceride moiety;
- (v) an anhydride derivative of clause (ii) above having, at the end opposite of the anhydride, an acid anhydride, acid halide, or glyceride moiety; or
- (vi) a glyceride derivative of clause (ii) above having, at the end opposite of the glyceride portion, a glyceride, acid halide, or acid anhydride moiety; which blend also comprises, optionally, another constituent(s), and wherein said composition and each of said constituents and any other constituent comprising the composition is are a solid at room temperature.
- 48. (canceled)
- 49. (original) The solid oral dosage form according to claim 11, wherein the dosage form is a capsule.
- 50. (previously presented) The solid oral dosage form according to claim 49, wherein the capsule is coated with a rate controlling polymer material.
- 51. (previously presented) The solid oral dosage form according to claim 49 wherein the capsule is coated with a delayed release polymer.
- 52. (canceled)
- 53. (currently amended) A solid oral dosage form comprising a <u>hydrophilic or</u>

  <u>macromolecular</u> drug and, as the only enhancer present in the dosage form, one or

more members selected from the group consisting of a salt of a fatty acid which has a carbon chain length of from 6 to 20 carbon atoms.

- 54. (previously presented) The solid oral dosage form of claim 53, wherein the enhancer is one or more members selected from the group consisting of a salt of a fatty acid having a carbon chain length of from 8 to 14 carbon atoms.
- 55. (previously presented) The solid oral dosage form of claim 53 wherein said fatty acid salt is a sodium salt.
- 56. (previously presented) The solid oral dosage form of claim 55, wherein the enhancer is selected from the group consisting of sodium caprylate, sodium caprate and sodium laurate.
- 57. (previously presented) The solid oral dosage form of claim 53, wherein the drug is a polysaccharide, an oligosaccharide, a protein or a peptide.
- 58. (previously presented) The solid oral dosage form of claim 57, wherein said polysaccharide is low molecular weight heparin.
- 59. (withdrawn) The solid oral dosage form of claim 57, wherein the peptide is luteinising hormone-releasing hormone analog.
- 60. (withdrawn) The solid oral dosage form of claim 53, wherein the drug is selected from the group consisting of TRH, unfractionated heparin, insulin, luteinising hormone-releasing hormone (LHRH), leuprolide, goserelin, genotropin, nafarelin, buserelin, alendronate, cyclosporine, calcitonin, vasopressin, desmopressin and salts thereof.

- 61. (previously presented) The solid oral dosage form of claim 53, wherein the drug and the enhancer are present in a weight ratio of from 1:100000 to 10:1 (drug: enhancer).
- 62. (previously presented) The solid oral dosage form of claim 53 selected from the group consisting of a tablet, a capsule, and a multiparticulate.
- 63. (currently amended) A method of treatment of a medical condition comprising administering orally to a patient suffering from said medical condition a solid dosage form containing a therapeutically effective amount of a <u>hydrophilic or macromolecular</u> drug effective in treating the medical condition and, as the only enhancer present in the dosage form, one or more members selected from the group consisting of a salt of a fatty acid which has a carbon chain length of from 6 to 20 carbon atoms.
- 64. (currently amended) A process for the manufacture of a solid oral dosage form comprising the steps of:
  - i) providing a blend of a <u>hydrophilic or macromolecular</u> drug and, as the only enhancer present in the dosage form, one or more members selected from the group consisting of: a) an acid salt, acid halide, acid anhydride, or glyceride derivative of a fatty acid having a carbon chain length of from 6 to 20 carbon atoms; and b) a derivative of clause a) which is difunctional in that it has, on the end of the carbon chain opposite the acid <u>salt</u> group, an acid halide, an acid anhydride, or a glyceride moiety; and
  - ii) forming said solid oral dosage form of the composition from the blend by:
    - a) direct compression of the blend; or
    - b) granulating the blend to form a granular material.

- 65. (currently amended) A composition in solid oral dosage form comprising a hydrophilic or macromolecular drug and, as the only enhancer present in the dosage form, one or more members selected from the group consisting of:
  - (a) an acid salt, acid halide, acid anhydride, or glyceride of a fatty acid having a carbon chain length of from 6 to 20 carbon atoms; and
  - (b) a derivative of clause (a) which is a difunctional in that it has on the end of the carbon chain opposite the acid <u>salt</u> group an acid halide, an acid anhydride, or a glyceride moiety.
- 66. (previously presented) The composition of claim 65 wherein the drug, the enhancer, and any other constituent present in the composition is a solid at room temperature.
- 67. (withdrawn) The solid oral dosage form of claim 1, wherein the drug is a therapeutically effective amount of a bisphosphonate.
- 68. (withdrawn) The solid oral dosage form according to claim 67 and including about 0.5 μg to about 1,000 mg of the bisphosphonate.
- 69. (withdrawn) The solid oral dosage form according to claim 68 in which the bisphosphonate and the enhancer are present in a ratio of from 1:100,000 to 10:1 (bisphosphonate : enhancer).
- 70. (withdrawn) The solid oral dosage form according to claim 69, wherein the ratio is from 1:1,000 to 10:1.
- 71. (withdrawn) The solid oral dosage form according to claim 67, wherein the bisphosphonate is alendronate.

- 72. (withdrawn) The solid oral dosage form according to claim 68, wherein the bisphosphonate is alendronate.
- 73. (withdrawn) The solid oral dosage form according to claim 69, wherein the bisphosphonate is alendronate.
- 74. (withdrawn) The solid oral dosage form according to claim 70, wherein the bisphosphonate is alendronate.
- 75. (withdrawn) The solid oral dosage form according to claim 67, wherein the fatty acid has a carbon chain length of from 8 to 14 carbon atoms.
- 76. (withdrawn) The solid oral dosage form according to claim 68, wherein the fatty acid has a carbon chain length of from 8 to 14 carbon atoms.
- 77. (withdrawn) The solid oral dosage form according to claim 69, wherein the fatty acid has a carbon chain length of from 8 to 14 carbon atoms.
- 78. (withdrawn) The solid oral dosage form according to claim 70, wherein the fatty acid has a carbon chain length of from 8 to 14 carbon atoms.
- 79. (withdrawn) The solid oral dosage form according to claim 71, wherein the fatty acid has a carbon chain length of from 8 to 14 carbon atoms.
- 80. (withdrawn) The solid oral dosage form according to claim 72, wherein the fatty acid has a carbon chain length of from 8 to 14 carbon atoms.
- 81. (withdrawn) The solid oral dosage form according to claim 73, wherein the fatty acid has a carbon chain length of from 8 to 14 carbon atoms.

- 82. (withdrawn) The solid oral dosage form according to claim 74, wherein the fatty acid has a carbon chain length of from 8 to 14 carbon atoms.
- 83. (withdrawn) The solid oral dosage form according to claim 71, wherein the bisphosphonate is etidronate.
- 84. (withdrawn) The solid oral dosage form of claim 67 in delayed release form and comprising a tablet which has thereon an enteric coating.
- 85. (withdrawn) The solid oral dosage form of claim 84, wherein the bisphosphonate and the enhancer are present in a ratio of from 1:1,000 to 10:1 (drug:enhancer).
- 86. (withdrawn) The solid oral dosage form of claim 85 wherein the enhancer is sodium caprate.
- 87. (new) The solid oral dosage form of claim 53 wherein the drug, the enhancer, and any other constituent present in the composition are a solid at room temperature.
- 88. (new) A solid composition capable of being formed into a solid oral dosage form for delivery to an intestine and which comprises a hydrophilic or macromolecular drug and, as an enhancer, a salt of a medium chain fatty acid which has a carbon chain length of from 6 to 20 carbon atoms, wherein each of said constituents and any other constituent comprising the composition are a solid at room temperature.
- 89. (new) The composition of claim 88, wherein the carbon chain length is from 8 to 14 carbon atoms.
- 90. (new) The composition of claim 88, wherein the enhancer is a sodium salt of a medium chain fatty acid.

- 91. (new) The composition of claim 90, wherein the enhancer is selected from the group consisting of sodium caprylate, sodium caprate and sodium laurate.
- 92. (new) The composition of claim 88, wherein the drug is a polysaccharide, an oligosaccharide, a protein or a peptide.
- 93. (new) The composition of claim 92, wherein the polysaccharide is low molecular weight heparin.
- 94. (new) The composition of claim 88, wherein the drug and the enhancer are present in a ratio of from 1:100,000 to 10:1 (drug : enhancer).
- 95. (new) The composition of claim 88 wherein the salt of a medium chain fatty acid is the only enhancer present in the composition.
- 96. (new) A process for the preparation of a solid composition which is capable of being formed into a solid oral dosage form for delivery to an intestine comprising the step of:
  - a) providing a blend of a hydrophilic or macromolecular drug and, as an enhancer:
  - (i) a salt of a medium chain fatty acid having a carbon chain length of from 6 to 20 carbon atoms;
  - (ii) a medium chain fatty acid halide derivative, a medium chain fatty acid anhydride derivative, or a medium chain fatty acid glyceride derivative, each of said derivatives having a carbon chain length of from 6 to 20 carbon atoms; or
  - (iii) the fatty acid salt of clause (i) having, at the end opposite the fatty acid <u>salt</u>, an acid halide, an acid anhydride, or glyceride moiety;
  - (iv) an acid halide derivative of clause (ii) above having, at the end opposite of the halide portion, an acid halide, acid anhydride, or glyceride moiety;

- (v) an anhydride derivative of clause (ii) above having, at the end opposite of the anhydride, an acid anhydride, acid halide, or glyceride moiety; or
- (vi) a glyceride derivative of clause (ii) above having, at the end opposite of the glyceride portion, a glyceride, an acid halide, or acid anhydride moiety; which blend also comprises, optionally, another constituent(s); wherein said blend and each of said drug, enhancer, and optional constituent(s) is a solid at room temperature.
- 97. (new) The process according to claim 96 wherein the drug and the enhancer are blended in a ratio of from 1:100,000 to 10:1 (drug: enhancer).
- 98. (new) A solid composition which is capable of being formed into a solid oral dosage form for delivery to an intestine comprising a hydrophilic or macromolecular drug and, as the only enhancer present in the composition, one or more members selected from the group consisting of a salt of a fatty acid which has a carbon chain length of from 6 to 20 carbon atoms.
- 99. (new) The composition of claim 98, wherein the enhancer is one or more members selected from the group consisting of a salt of a fatty acid having a carbon chain length of from 8 to 14 carbon atoms.
- 100. (new) The composition of claim 98, wherein said fatty acid salt is a sodium salt.
- 101. (new) The composition of claim 100, wherein the enhancer is selected from the group consisting of sodium caprylate, sodium caprate and sodium laurate.
- 102. (new) The composition of claim 98, wherein the drug is a polysaccharide, an oligosaccharide, a protein or a peptide.
- 103. (new) The composition of claim 102, wherein said polysaccharide is low molecular weight heparin.

- 104. (new) The composition of claim 98, wherein the drug and the enhancer are present in a weight ratio of from 1:100000 to 10:1 (drug : enhancer).
- 105. (new) A process for the preparation of a solid composition which is capable of being formed into a solid oral dosage form for delivery to an intestine comprising the step of:
  - i) providing a blend of a hydrophilic or macromolecular drug and, as the only enhancer present in the dosage form, one or more members selected from the group consisting of: a) an acid salt, acid halide, acid anhydride, or glyceride derivative of a fatty acid having a carbon chain length of from 6 to 20 carbon atoms; and b) a derivative of clause a) which is difunctional in that it has, on the end of the carbon chain opposite the acid salt group, an acid halide, an acid anhydride, or a glyceride moiety.
- 106. (new) A solid composition which is capable of being formed into a solid oral dosage form for delivery to an intestine and which comprises a low molecular weight heparin and, as an enhancer, sodium caprate, wherein said composition and each of said constituents and any other constituent comprising the composition are a solid at room temperature.
- 107. (new) The composition of claim 106 in the form of a solid oral dosage form.
- 108. (new) A solid composition which is capable of being formed into a solid oral dosage form for delivery to an intestine and which comprises low molecular weight heparin and, as the only enhancer present in the composition, sodium caprate.
- 109. (new) The composition of claim 108 in the form of a solid oral dosage form.